

## A new golden rod from Northern New Mexico

T. D. A. COCKERELL AND D. M. ANDREWS

The plant described below was found in some abundance by D. M. Andrews on rocky slopes of Mount Capulin National Monument, New Mexico, where it appeared to favor the driest positions. When transferred to the moister garden it retained essentially its natural habit, but the inflorescence became somewhat more ample in its branching.

### *Solidago capulinensis* n. sp.

Caulis 8.5 dm., multicephalus, erectus, strigosus, rugosus, purpurascens; rami laterales numerosis; foliis lanceolatis, alternis, viridibus, paucedentalis, numerosis; capitulis long. prox. 5.5 mm., lat. 3.5; phyllariis subacutis, viridimaculatis; acheniis quinquecostatis, glabris.

Erect, about 8.5 dm. high, with several to many strong stiff stems from a compact crown, the very short runners from base of stems being nearly erect; stems rough, striate, and suffused with purplish; radical leaves spatulate or oblanceolate, 10–15 cm. long, 2 cm. or more in width, broadly acute or rounded at the tip, pinnate-veined, serrate above the middle, entire and narrowing toward the base, the whole margin of the leaf ciliate with curved hairs; cauline leaves sessile, alternate, lanceolate, rough but not canescent, remotely dentate beyond the middle, the margins very briefly ciliolate with minute curved hairs; inflorescence spreading, with many axillary branches, but not at all flat-topped, heads densely crowded; heads about 5.5 mm. long and 5 wide, the phyllaries in about three rows, appressed, rather obtusely pointed, whitish, with a large lanceolate green mark at upper end, having for its stem the narrow green midrib; pappus white, about 3.5 mm. long; corolla bright orange, about 5 mm. long. At maturity the slender glabrous achenes become about 3 mm. long, and are strongly 5-ribbed. The phyllaries exhibit a faint striation or ribbing, hardly apparent after drying, whereas those of *Oligoneuron rigidum* (L.) have five parallel pale green lines. The plant differs greatly from *O. rigidum* and its immediate allies in not having the inflorescence at all flat-topped, and the heads smaller. In contrast with *O. rigidum*, the leaves are bright green, much

smaller, narrower and more numerous, with the lateral veins leaving the midrib at a much more acute angle; the small uppermost leaves are narrowly lanceolate, not at all ovate or broad cuneate. The lower stem-leaves are about 95 mm. long and 18 broad, and are sessile, crowded on the stem. There are about 27 florets in a head; the narrow corolla-lobes are about 1.7 mm. long. The inflorescence resembles *Solidago oreophila*, but that has quite different leaves, and larger heads. The stem is like that of *S. puberula* Nuttall.

In Rydberg's key (Flora of Rocky Mountains) it runs nearest to *S. concinna* Nels., a much smaller plant, with pubescent achenes, those of our plant being quite smooth. In Small's key (Flora S. E. States) it goes to *S. lindheimeriana* Scheele, which has entire leaves. In Britton and Brown (Ill. Flora) it will not go satisfactorily anywhere, but the closest resemblance is perhaps to *S. hispida* Muhl. In Rydberg's Flora of the Prairies and Plains it clearly falls in the Speciosae, and apparently nearest to *S. lindheimeriana*.

In full flower the rather short broad heads have the phyllaries conspicuously marked with green apically, often to the exclusion of the light margin seen in most species. This gives a spotted effect, as in *S. oreophila* Rydb. Later, as the heads go to seed, the phyllaries become more elongated, and paler, and for the most part show only a pale suffused green central stripe, more in the manner of *S. concinna* Nels. The pattern of the phyllaries in most *Solidago* consists of a green central stripe, with a variable amount of green extending suffusedly over the apical part, but usually leaving a distinct light margin. *S. missouriensis* Nutt. is exceptional in that there are two green stripes, separated by a light median stripe.

Our plant may be a western derivative of *S. puberula* Nuttall, with shorter, less acute phyllaries and rough stem. Capulin, where the plant was discovered about August 18, 1930, is about 18 miles from the Colorado line, and two or three times that distance from Oklahoma.

BOULDER, COLORADO